

PARAMETER TITLE: Surface Microbial Density (d_s (0))

VALUE	
UPPER	
ACCEPTABLE	See Below
LOWER	

APPLICATION	
MISSION	All
CATEGORY	III, IV
PLANET	All

PARAMETER DEFINITION: The average number of microorganisms on any free surface (non-encapsulated) of a spacecraft system, subsystem, assembly or subassembly.

APPLICABLE SOURCE: All fallout burden on the spacecraft (exposed and mated).

CONSTRAINTS: Values of this parameter are selected from the following categories, depending on the manufacturing process and cleaning and contamination control procedures for the designated hardware:

Clean room 10^4 or better - highly controlled	500/m ²
Clean room 10^4 - normal control	5×10^3 /m ²
Clean room 10^5 - highly controlled	1×10^4 /m ²
Clean room 10^5 - normal control	1×10^5 /m ²
Uncontrolled manufacturing	1×10^6 /m ²

For estimating spore surface densities (for purposes other than to establish terminal sterilization cycles), use 10% of the above values.

Planetary Protection Officer

Date